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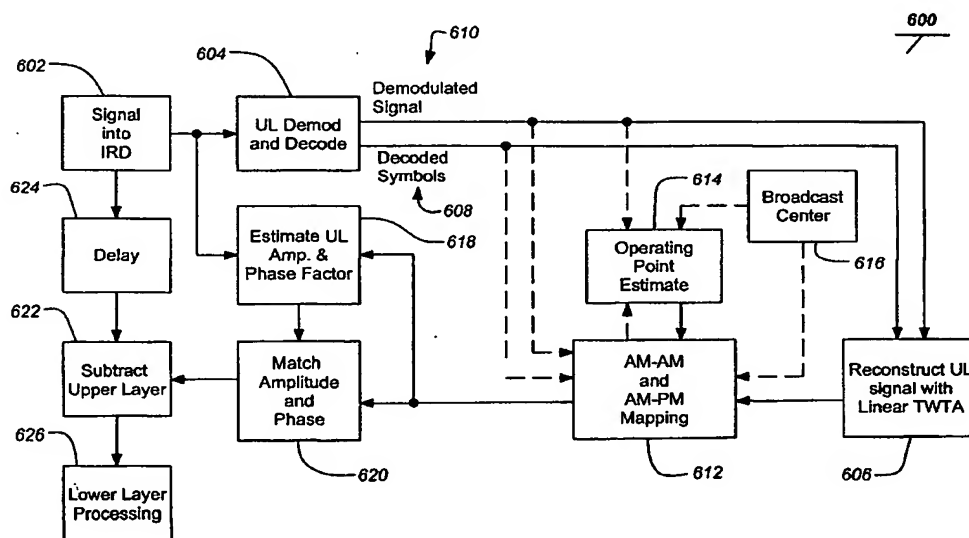
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(54) Title: AMPLITUDE AND PHASE MATCHING FOR LAYERED MODULATION RECEPTION



(57) **Abstract:** An apparatus and method for receiving layered modulation signals is disclosed. A typical method includes receiving a layered modulation signal (602) including an upper layer signal and a lower layer signal, demodulating and decoding (604) the upper layer signal from the received layered modulation signal, estimating an upper layer amplitude factor and an upper layer phase factor (618) from the received layered modulation signal. A substantially ideal upper layer signal is reconstructed from the demodulated and decoded upper layer signal including matching an ideal amplitude and an ideal phase (620) by applying the upper layer amplitude factor and the upper layer phase factor to the reconstructed ideal upper layer signal. Finally, the reconstructed ideal upper layer signal is subtracted from the received layered modulation signal (622) to produce the lower layer signal for processing.

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